

STREAM BUFFER CONSERVATION ZONE MODEL ORDINANCE

I. INTENT AND PURPOSE

In recognition of the fact that values afforded by functional stream buffers contribute to the welfare of residents, the following regulations have been enacted to provide reasonable controls governing the conservation, disturbance, restoration and management of existing stream buffers for all perennial and intermittent streams, and all lakes, ponds and reservoirs in the municipality by establishing a Stream Buffer Conservation Zone (SBCZ). The specific purposes and intent of this article are to:

- A. Regulate the land use, siting, and engineering of all development in the SBCZ to be consistent with the intent and objectives of this ordinance and accepted conservation practices.
- B. Prevent excessive nutrients, sediment, and organic matter, as well as biocides and other pollutants, from reaching surface waters by optimizing opportunities for filtration, deposition, absorption, adsorption, plant uptake, biodegradation, and denitrification, which occur when stormwater runoff is conveyed through vegetated buffers as stable, distributed sheet flow prior to reaching receiving waters.
- C. Provide for shading of the aquatic environment so as to moderate temperatures, retain more dissolved oxygen, and support a healthy assemblage of aquatic flora and fauna.
- D. Provide for natural organic matter (fallen leaves and twigs) and large woody debris (fallen trees and limbs) that provide food and habitat for small bottom dwelling organisms (insects, amphibians, crustaceans, and small fish), which are essential to maintain the food chain.
- E. Increase stream bank stability and maintain natural fluvial geomorphology of the stream system, thereby reducing streambank erosion and sedimentation and protecting habitat for aquatic organisms.
- F. Conserve the natural features important to land and water resources, e.g., headwater areas, groundwater recharge zones, floodway, floodplain, springs, streams, wetlands, woodlands, and prime wildlife habitats.
- G. Work with state laws and other ordinances that regulate environmentally sensitive areas to minimize hazards to life, property, and stream features and assist in the implementation of pertinent state laws concerning erosion and sediment control

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practices.

II. DEFINITIONS

For the purposes of this ordinance the following definitions shall apply:

“Category one waters” or “C1” means those waters designated in the tables in N.J.A.C. 7:9B-1.15

“Category two waters” or “C2” means those waters not designated as Outstanding National Resource Waters or Category One at N.J.A.C. 7:9B-1.15.

“Intermittent stream” means surface water drainage channels with definite bed and banks in which there is not a permanent flow of water. Most intermittent streams are shown on Soil Conservation Service county soil surveys. These are portrayed as a dashed line on a USDA Soil Survey Map of the most recent edition, or as state open water identified in a letter of interpretation issued by the NJDEP Land Use Regulation Program, whichever is more inclusive.

"Lake, pond, or reservoir" means any impoundment, whether naturally occurring or created in whole or in part by the building of structures for the retention of surface water, excluding sedimentation control and stormwater retention/detention basins and ponds designed for treatment of wastewater.

“Perennial stream” means a stream that appears as a blue line on USGS topographic quadrangle maps and flows continuously throughout the year in most years.

III. ESTABLISHMENT OF THE STREAM BUFFER CONSERVATION ZONE

A. The SBCZ is defined as the designated area adjacent to surface water, including lakes, ponds and reservoirs, and intermittent or perennial streams. The SBCZ may or may not contain trees and other vegetation at the time of ordinance enactment. The SBCZ shall be measured from each defined edge of an intermittent or perennial stream, or lake, pond or reservoir at bank-full flow or level. The SBCZ will consist of two distinct classifications. These classifications determine the width of the SBCZ, except where steep slopes (in excess of 10 percent) are located within the designated widths, in which case the SBCZ shall be extended to include the entire distance of this sloped area. The two classes are designated as:

1. **Class 1 Stream Buffer Conservation Zones** are adjacent to C1 waters and extend 150 feet from the top of each bank at bank-full flow or level or from the centerline of intermittent streams.

2. Class 2 Stream Buffer Conservation Zones are adjacent to C2 waters and extend 75 feet from the top of each bank at bank-full flow or level or from the centerline of intermittent streams.

- B. The SBCZ is an overlay to the existing zoning districts. The provisions of the underlying district shall remain in full force, except where the provisions of the SBCZ differ from the provisions of the underlying district, in which case the provision which is more restrictive, and less permissive, to a landowner or applicant shall apply.

These provisions are intended to modify the type of land use, siting of structures, and engineering of all proposed development on parcels located within the SBCZ. These provisions apply to land disturbances resulting from or related to any activity or use requiring application for any of the following permits or approvals:

- Building permit
- Zoning variance
- Special exception
- Conditional use
- Subdivision/land development approval

IV. STREAM BUFFER CONSERVATION ZONE USES

Stream Buffer Conservation Zones shall remain in a natural condition or, if in a disturbed condition, including agricultural activities, at the time of adoption of this ordinance, may be restored to a natural condition. There shall be no clearing or cutting of trees and brush, except for removal of dead vegetation and pruning for reasons of public safety or for the replacement of invasive species with indigenous species, altering of watercourses, dumping of trash, soil, dirt, fill, vegetative or other debris, regrading or construction.

- A. Open space uses that are primarily passive in character shall be permitted to extend into the SBCZ, provided near stream vegetation is preserved, including:
1. Wildlife sanctuaries, nature preserves, forest preserves, fishing areas, game farms, fish hatcheries and fishing reserves, operated for the protection and propagation of wildlife, but excluding structures.
 2. Passive areas of public and private parklands including unpaved hiking, bicycle and bridle trails, provided that said trails have been stabilized with pervious materials.
- B. Streambank stabilization or riparian reforestation, which conform to the guidelines of the Stream Buffer Management Plan described in Section X, or

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wetlands mitigation projects that have been approved by the Department of Environmental Protection, are permitted to extend into the SBCZ.

- C. SBCZ crossings by recreational trails, roads, railroads, sewer and/or water lines, and public utility transmission lines, are permitted, provided that any disturbance is offset by buffer improvements in compliance with the Stream Buffer Management Plan mitigation plan, and any applicable State permits are acquired.

V. PERFORMANCE STANDARDS FOR STREAM BUFFER CONSERVATION ZONES

- A. All new major and minor subdivisions and site plans shall be designed to provide sufficient areas outside of the SBCZ to accommodate primary structures, any normal accessory uses appurtenant thereto, as well as all planned lawn areas. Portions of lots within the SBCZ must be permanently restricted by deed or conservation easement held by [*insert name of municipality*] to prevent clearing of vegetation within the SBCZ. Any lands proposed for development which include all or a portion of a SBCZ, shall as a condition of any major subdivision or major site plan approval, provide for the vegetation or re-vegetation of any portions of the SBCZ which are not vegetated at the time of the application or which were disturbed by prior land uses, including for agricultural use. Said vegetation plan shall utilize native tree and plant species in accordance with the Stream Buffer Management Plan described in Section X.
- B. Minimum required front, side, and rear setbacks required for building lots which exist as of the date of adoption of this ordinance, but have not obtained a building permit, may extend into the SBCZ, provided that a deed restriction and/or conservation easement is applied which prohibits clearing or construction in the SBCZ.

VI. NONCONFORMING STRUCTURES AND USES IN THE STREAM BUFFER CONSERVATION ZONE

Nonconforming structures and uses of land within the SBCZ are subject to the following requirements:

- A. Existing nonconforming structures or uses may be continued but shall not have the existing building footprint or uses expanded or enlarged.
- B. Discontinued nonconforming uses may be resumed any time within one year from such discontinuance but not thereafter when showing clear indications of abandonment. No change or resumption shall be permitted that is more detrimental to the SBCZ, as measured against the intent and purpose under Section I, than the existing or former nonconforming use. This one-year time

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frame shall not apply to agricultural uses that are following prescribed Best Management Practices for crop rotation. However, resumption of agricultural uses must be strictly confined to the extent of disturbance existing at the time of adoption of this ordinance.

VII. USES SPECIFICALLY PROHIBITED IN THE STREAM BUFFER CONSERVATION ZONE

Any use or activity not specifically authorized within Sections IV or VI shall be prohibited within the SBCZ.

VIII. ACTIVITIES PERMITTED IN STREAM BUFFER CONSERVATION ZONES IN THE CASE OF NO REASONABLE OR PRUDENT ALTERNATIVE OR EXTREME HARDSHIP

- A. Hardship variances may be granted by the Zoning Board in cases of a pre-existing lot (existing at the time of adoption of this ordinance) for a one-family or two-family dwelling, when there is insufficient room outside the SBCZ for uses permitted by the underlying zoning and there is no other reasonable or prudent alternative to placement in the SBCZ, including obtaining variances from setback or other requirements that would allow conformance with the SBCZ requirements, and provided the following demonstrations are made:
 - 1. An applicant shall be deemed to have established the existence of an extreme economic hardship, as distinguished from mere inconvenience, if the subject property is not capable of yielding a reasonable economic return if its present use is continued or if it is developed in accordance with provisions of this ordinance and that this inability to yield a reasonable economic returns results from unique circumstances peculiar to the subject property which:
 - a. do not apply to or affect other property in the immediate vicinity;
 - b. relate to or arise out of the characteristics of the subject property because of the particular physical surroundings, shape or topographical conditions of the property involved, rather than the personal situations of the applicant; and
 - c. are not the result of any action or inaction by the applicant or the owner or his predecessors in title. The necessity of acquiring additional land to locate development outside the SBCZ shall not be considered an economic hardship unless the applicant can demonstrate that there is no adjacent land that is reasonably available.

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2. An applicant shall be deemed to have established compelling public need if the applicant demonstrates, based on specific facts, that:
 - a. the proposed project will serve an essential public health or safety need;
 - b. the proposed use is required to serve an existing public health or safety need; or
 - c. there is no alternative available to meet the established public health or safety need.
 3. A variance can only be granted if it shown that the activity will not be materially detrimental or injurious to other property or improvements in the area in which the subject property is located and will not endanger public safety; and the exception granted is the minimum relief necessary to relieve the hardship.
- B. If the above demonstrations are made, then the following encroachments into the SBCZ may be permitted:
1. Encroachment of impervious surfaces (structures or pavement) otherwise permitted by the underlying zoning is permitted to the extent of 750 square feet total. Said encroachment is not permitted closer than 100 feet from the top of the bank at bank-full flow or level of C1 waters or closer than 50 feet from the top of the bank at bank-full flow or level of C2 waters.
 2. Encroachment of lawn areas, but no closer than 100 feet from the edge of a C1 water or 50 feet from the edge of a C2 water.
- C. If such an exception is granted, the applicant shall rehabilitate an environmentally degraded stream corridor within or adjacent to the same site at least equivalent in size to the SBCZ reduction permitted or, if not possible, rehabilitate or expand a SBCZ at least equivalent in size within a nearby site and, if available, within the same watershed. Rehabilitation shall include reforestation, stream bank stabilization and removal of debris, in accordance with a Stream Buffer Management Plan.

IX. BOUNDARY INTERPRETATION, APPEALS PROCEDURES, INSPECTIONS, CONFLICTS, SEVERABILITY

(Option: municipality may prepare map of municipality depicting extent of the SBCZ, which would then need to be updated to keep up with changes made by the NJDEP in water classifications.)

- A. When a landowner or applicant disputes the boundaries of the Stream Buffer

Conservation Zone or the defined bank-full flow or level, the landowner or applicant shall submit evidence to (*insert name of appropriate municipal contact*) that describes the SBCZ, presents the landowner or applicant's proposed SBCZ, and presents all justification for the proposed boundary change.

- B. Within 45 days of a complete submission of Section IX A above, the Township Engineer, or appointed representative, shall evaluate all material submitted and shall make a written determination, a copy of which shall be submitted to (*insert name of appropriate municipal contact*) and the landowner or applicant. Failure to act within the 45-day period shall not be interpreted to be an approval of the proposed boundary change.
- C. Any party aggrieved by any such determination or other decision or determination under this section may appeal to the (*insert name of appropriate municipal contact*) under the provisions of this ordinance. The party contesting the location of the SWCZ boundary shall have the burden of proof in case of any such appeal.

D. Inspections

- 1. Lands within or adjacent to an identified SBCZ will be inspected by the municipal representative when:
 - a. a subdivision or land development plan is submitted.
 - b. a building permit is requested.
 - c. a change or resumption of nonconforming use is proposed.
 - d. discontinued use for more than a year as described in Section VI.
The party contesting the discontinued use shall have the burden of proof to demonstrate when use was discontinued.
- 2. The SBCZ may also be inspected periodically by the representatives from the Township if excessive or potentially problematic erosion is present, other problems are discovered, or at any time when the presence of an unauthorized activity or structure is brought to the attention of Township officials or when the downstream surface waters are indicating reduction in quality.

D. Conflicts

All other ordinances, parts of ordinances, or other local requirements that are inconsistent or in conflict with this ordinance are hereby repealed to the extent of any inconsistency or conflict and the provisions of this ordinance apply.

E. Severability

(Add standard severability clause)

X. STREAM BUFFER MANAGEMENT PLAN

A. Within any Stream Buffer Conservation Zone, no construction, development, use, activity, or encroachment shall be permitted unless the effects of such development are accompanied by preparation, approval, and implementation of a Stream Buffer Management Plan.

B. The landowner, applicant, or developer shall submit to (*insert name of appropriate municipal contact*), or its appointed representative, a Stream Buffer Management Plan prepared by an environmental professional, professional engineer or other qualified professional which fully evaluates the effects of any proposed uses on the SBCZ. The Stream Buffer Management Plan shall identify the existing conditions including:

1. Existing vegetation;
2. Field delineated streams, wetlands, and the 100-year floodplain;
3. Mapped soils;
4. Existing subdrainage areas of site;
5. Slopes in each subdrainage area segmented into sections of slopes less than or equal to ten (10) percent; eleven (11) to nineteen percent; and greater than or equal to twenty (20) percent;
6. All proposed activities; and
7. A mitigation plan that demonstrates how the loss of value afforded by the existing buffer will be compensated for.

C. The Plan shall be reviewed and must be approved by the Township Engineer, in consultation with the Environmental Commission, as part of the subdivision and land development process.

D. The Stream Buffer Management Plan should include management provisions in narrative and/or graphic form specifying:

1. The manner in which the SBCZ will be owned and by whom it will be managed and maintained.
2. The conservation and/or land management techniques and practices that will be used to conserve and protect the SBCZ, as applicable.
3. The professional and personnel resources that are expected to be necessary in order to maintain and manage the SBCZ.
4. A revegetation plan, if applicable, that includes: three (3) layers of vegetation, including herbaceous plants that serve as ground cover, understory shrubs, and trees that form an overhead canopy. Vegetation selected must be native and consistent with the soil, slope and moisture conditions of the site. The revegetation plan shall be prepared by a qualified

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professional such as a landscape architect or engineer, and shall be subject to the approval of the Municipal Engineer, in consultation with the Environmental Commission.

- E. A Stream Buffer Management Plan is not required where the SBCZ is not being disturbed and conservation easements/deed restrictions applied to ensure there will be no future clearing or disturbance of the SBCZ.